AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A variable gain amplification circuit comprising:

a signal generator ~~that has~~ having an output terminal ~~and is able to vary an output amplitude~~;

a variable capacitor connected ~~between~~ to said ~~the~~ output terminal ~~and an AC grounded terminal~~; and

a control circuit ~~for controlling~~ operable to control ~~the~~ an output amplitude of ~~the~~ said signal generator[[,]] and a capacitance of ~~the~~ said variable capacitor.

2. (Currently Amended) A variable gain amplification circuit as defined in Claim 1, wherein said signal generator ~~has~~ includes a variable resistor at an output load part thereof.

3. (Currently Amended) A variable gain amplification circuit as defined in Claim 1, wherein said signal generator ~~has~~ includes a variable inductor at an output load part thereof.

4. (Currently Amended) A variable gain amplification circuit as defined in Claim 1, wherein said signal generator comprises:

a variable gain mixer having a first input terminal and a second input terminal;

an RF signal source connected to ~~the~~ said first input terminal of ~~the~~ said variable gain mixer; and

an LO signal source connected to ~~the~~ said second input terminal of ~~the~~ said variable gain mixer.

5. (Previously presented) A variable gain amplification circuit as defined in Claim 1, wherein said signal generator comprises:

a variable gain amplifier having a first input terminal; and

an RF signal source connected to the first input terminal of the variable gain amplifier.

6. (Original) A variable gain amplification circuit as defined in Claim 4, wherein said variable gain mixer is a single balanced mixer or a double balanced mixer.

7. (Original) A variable gain amplification circuit as defined in Claim 5, wherein said variable gain amplifier is a source grounded amplifier.

8. (Currently Amended) A variable gain amplification circuit as defined in Claim 1,

wherein said variable capacitor ~~is constituted by~~ includes a circuit comprising at least two capacitors placed in parallel ~~between the first terminal and the second terminal~~, and at least one switch connected to an end of one of said at least two capacitors; and

wherein the capacitance of said variable capacitor ~~between the first terminal and the second terminal~~ is varied by ON/OFF of said at least one switch.

9. (Currently Amended) A variable gain amplification circuit as defined in Claim 1,

wherein said variable capacitor ~~has~~ includes a capacitor and a MOS device whose gate

terminal is connected to ~~the~~ said capacitor ~~capacitor, between a third terminal and a fourth terminal~~; and

wherein the capacitance of said variable capacitor ~~between the third terminal and the fourth terminal~~ is varied by a bias voltage supplied to ~~the~~ said gate terminal of ~~the~~ said MOS device.

10. (Currently Amended) A variable gain amplification circuit as defined in Claim 2,

wherein said variable resistor ~~is constituted by~~ includes a circuit comprising at least two resistors placed in parallel ~~between the first terminal and the second terminal~~, and at least one switch connected to an end of one of said at least two resistors; and

wherein the resistance ~~between the first terminal and the second terminal~~ of said variable resistor is varied by ON/OFF of said at least one switch.

11. (Currently Amended) A variable gain amplification circuit as defined in Claim 3,

wherein said variable inductor is constituted by a circuit comprising at least two inductors placed in parallel ~~between the first terminal and the second terminal~~, and at least one switch connected to an end of one of said at least two inductors; and

wherein the inductance ~~between the first terminal and the second terminal~~ of said variable inductor is varied by ON/OFF of said at least one switch.

12. (Currently Amended) A variable gain amplification circuit as defined in Claim 1, wherein said control circuit controls ~~the~~ said variable capacitor so that ~~the~~ a cutoff frequency or resonance frequency of ~~the~~ said signal generator becomes constant.

13. (Previously presented) A variable gain amplification circuit as defined in Claim 4, wherein said RF signal source has a signal band equal to or larger than 100MHz.

14. (Original) A variable gain amplification circuit as defined in Claim 4, wherein said variable gain mixer is a down conversion mixer.

15. (Previously presented) A variable gain amplification circuit as defined in Claim 5, wherein said RF signal source has a signal band equal to or larger than 100MHz.